

Overview

- Markup language
 - Rules of the language
 - Translating stuff into markup language
 - Procedures
- Style
 - The cascade
 - Tools
 - Procedures
- How Ctools is put together

Procedures: markup to doctype

- markup to doctype - avoid quirks mode!
 - Remember the **green** and **red** boxes? Quirks mode (the browser rules) may make things difficult.
- which doctype? Some advantages to XHTML strict:
 - xhtml dialects are "machine readable" - mashups are possible
 - force separation of data and presentation
 - cleaner, meaner

Decide on markup - all about meaning

- Build meaning into the markup
- The WC3 DTD is the boss of you
<http://www.w3.org/TR/xhtml1/dtds.html>
- Some examples
 - Paragraph
 - List
 - Address
 - Strong

Decide on markup: thumb rules

- items are arbitrary (simple, compound, the context decides)
- an item series (`p p p p p p p p`)
- lists of items with one attribute (`ol`, `ul`)
- lists of items with two attributes that are equivalent/related (`dl`)
- lists of items with more than one attribute (`table`)
- sections and subsections (`h``x` as separators)
- presentational crutches (`div`, `span`)

Markup a baby!



Markup a baby



`<p>`It was a ``nice``
baby... it had:`</p>`

``

``a hat``

``cool socks``

``

`<p>` It was in the park`</p>`

Markup a baby (2)



<p>Riiiiing! Riiing! Riiing!</p>

<cite>Baby</cite>

<blockquote>Hi Mom!</blockquote>

<cite>Mom</cite>

<blockquote>Sweetie! Where are you?</blockquote>

<cite>Baby</cite>

<blockquote>At the park, where you left me this morning...</blockquote>

<cite>Mom</cite>

<blockquote>OMG!</blockquote>

Markup a taxi stand



Markup a taxi stand



388

231

123

Markup a taxi stand



```
<table>
  <thead />
  <tr>
    <td>388</td>
    <td>Fred</td>
    <td>Reliable</td>
  </tr>
</table>
```

Markup a fruit bowl!



Markup a fruit bowl!



`<h1>Tropical fruit by size</h1>`

``

`Pineapple`

`Banana`

``

`<h1>Citrus fruit</h1>`

``

`Orange`

`Lemon`

``

`<h1>Dangerous fruit</h1>`

`<dl>`

`<dt>Mango</dt>`

`<dd> Causes alergic reactions</dd>`

`<dt>Strawberry</dt>`

`<dd> Can choke when eaten</dd>`

`</dl>`

Markup a fruit bowl! (2)



```
<h1>Tropical fruit</h1>
```

```
<h2>Pineapple</h2>
```

```
<p>Hard to peel</p>
```

```
<h2>Banana</h2>
```

```
<blockquote>"Essential to  
comedy"</blockquote>
```

```
<h1>Round fruit</h1>
```

```
<h2>Citrus fruit</h2>
```

```
<h3>Orange</h3>
```

```
<p>Some pithy remark</p>
```

```
<h3>Lemon</h3>
```

```
<p>Some pithy remark</p>
```

Markup a city block



This is crazy!
Not really - see
some
examples from
[Tantec Celik](#)

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<p>

<h2>

<h3>



```
<div>  
  <ul>  
    <li>  
  <p>
```



```
<div>  
  <form>  
    input field, input button  
  <p>  
    links  
</div>
```

Markup Google: the reality

- Meaningless markup
 - Where are the lists?
- Presentational markup
 - tables
 - divs, spans
 - font
 - underline, bold, nobr -why not blink!
- But is ok! Sort of
 - It is essentially HTML 4 transitional loose.dtd
 - A lot of old browsers out there!

Markup example

- Work without style – needs to make sense “naked”
- Add meaningless (from the point of view of markup) as last step because of:
 - Canvas needs
 - Flexibility
 - Positioning issues

What markup?

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Welcome to the SI539 Sample Site

Here are two quotes from Ghandi that look at power from different perspectives but reach the same conclusion.

Power is of two kinds. One is obtained by the fear of punishment and the other by acts of love. Power based on love is a thousand times more effective and permanent than the one derived from fear of punishment.

Power is of two kinds. One is obtained by the fear of punishment I hope to demonstrate that the real swaraj will come not by the acquisition of authority by a few, but by the acquisition of the capacity by all to resist authority, when abused.

MMMarkup: Welcome

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```
<h1 />Welcome...</h1>
```

```
<ul>
```

```
<li><a>About</a></li>
```

```
.....
```

```
</ul>
```

```
<h1>Welcome...</h1>
```

```
<p>
```

```
<blockquote />
```

```
<blockquote />
```

Adding Markup

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<div>

<div>

<h1>

<a>

</div>

<div>

.....

</div>

</div>

MMMarkup: Members

These are the members of SI539 who are in good standing and have paid all their dues.

Name	E-Mail	Start Date
Ruby Rails	ruby@si539.com	2006
Robby CSS	robby@si539.com	2004
Harriet HTML	harriet@si539.com	2004

If you think there is an error in the above send mail to membership@si539.com.

Notes:

1 - Added info and structure

2 - text are paragraphs

```
<table summary="what it is">
  <thead>
    <tr>
      <th scope="col">Name</th> .....
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Ruby Rails</td>
      .....
    </tr>
    .....
  </tbody>
</table>
```

Yet More MMMMarkup

These are the members of SI539 who are in good standing and have paid all their dues.

Name	E-Mail	Start Date
Ruby Rails	ruby@si539.com	2006
Robby CSS	robby@si539.com	2004
Harriet HTML	harriet@si539.com	2004

If you think there is an error in the above send mail to membership@si539.com.

Notes:

New classes, more structure

Spot the classes added for IE 6!

The table internals can be part of the hierarchy

```
<table summary="what it is"
class="flatTable">
  <thead>
    <tr>
      <th scope="col" class="firsthead">Name</th>
      ....
      <th scope="col" class="lasthead">Start
        Date</th>
    </tr>
  </thead>
  <tbody>
    <tr class="odd">
      <td><h3>Ruby Rails</h3></td>.....
    </tr>
    <tr class="even">
      <td><h3>Ruby Rails</h3></td>.....
    </tr>
  </tbody>
</table>
```


Even more MMMMarkup



Required Information

Enter your name:

Enter your E-Mail:

Note:

A fieldset is not “meaningful” as this is the only formish block in this view.

The `<label /> <input />` is a **unit** of MMM (more on this later)

Note the “empty” input - [XHTML](#)

```
<form>
  <fieldset><legend />
    <p>
      <label for="this">
        Enter...
      </label>
      <input type="text"
        id="this"/>
    </p>
    ....
  </fieldset>
</form>
```

Style: the cascade

<http://www.w3.org/TR/REC-CSS2/cascade.html#cascade>

http://css.maxdesign.com.au/selectutorial/advanced_conflict.htm

Note: $X > Y$ means that X is more powerful than Y

- Origin dictates (author > user > default) + !important
- Location dictates (old style [font] > inline > linked)
- Specificity
 - The more detailed the selector, the more trumping power
 - “this x” > “these x” > “all x”
 - Assuming all X inherit: what will “thisX” look like?
 - .allX {border:2px solid red; background:pink}
 - .theseX {font-size:small; background:lime}
 - .thisX {border:1px solid red}

Style:the cascade. Who wins?

What color will it be?

```
<body>
  <p>
    <span>
      <a href="#" id="bingo">
        A link
      </a>
    </span>
  </p>
</body>
```

Author sheet

a {color:yellow}

User sheet

a {color:red}

how about

Author sheet

a {color:yellow}

User sheet

a {color:red !important}

Style:the cascade. Who wins? What color will it be?

```
<body>
  <p>
    <span>
      <a href="#" id="bingo">
        A link
      </a>
    </span>
  </p>
</body>
```

```
body{ color:gray}
p {color:blue}
span {color:green}
a {color:fuchsia}
span a {color:black}
p span a {color:lime}
body p span a {color:red}
#bingo{display:none}
```

Style:the cascade. What does it all mean?

`p a` {all `<a>` descendants of `<p>`}

`p > a` {all `<a>` children of `<p>`}

`p *` {all descendants of `<p>`}

`p > * > a` {all grandchildren of `<p>`}

`span#shriek` {the one `` that has a `shriek` id}

`span.omg` {all `` with an `omg` class}

`span[class=omg]` {all `` with an `omg` class}

`span + a` { all `<a>` that are the same level as a `` }

`p#spud > * > a.bungo[href=the_bad_place.html]`

Styling: tools and terminology

- required editors features:
syntax highlighting, code completion
- desirable editor features:
autoformat, validation, browser hints, packaging
- Firebug, Web Developer Toolbar

Terminology

h1 {color:red}

selector {attribute:value}

Styling: procedure

1. zero out the default stylesheet of the browser

<http://developer.yahoo.com/yui/reset/>

2. map the cascade, working from a design
3. add style selectors to markup
(if needed at all!)
4. style for IE 6 first
5. style for Moz/Safari/IE 7 last

Styling: add style selectors to markup

- economy - make cascade work for you!
- but make sure you have what you need
- addressability for styling - but behaviours as well
- choices
 - id or class?
 - can address without adding either? Leave alone then

Adding style hooks

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```
<div id="wrap">
  <div id="nav">
    <h1 />
    <ul>
      <li id="current"><span /></li>
      <li><a><span /></a></li>
    </ul>
  </div>
  <div id="content">
    <h1 />
  </div>
</div>
```

Why ids?

Why not just class everything?

What if I need an `` in `#content` that needs to look different than the one in `#nav` ?

Adding style

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<div id="wrap">
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    <h1 />
    <ul>
      <li id="current"><span /></li>
      <li><a><span /></a></li>
    </ul>
  </div>
  <div id="content">
    <h1 />
  </div>
</div>
```

Why ids?

Why not just class everything?

What if I need an `` in `#content` that needs to look different than the one in `#nav` ?

Everything is addressable!

```
#nav h1
#nav ul
#nav li
#nav li a
#nav li a span

#nav li#current
#nav li#current span
```

Styling: style for IE 6 first

- Crippled implementation of CSS1
http://www.westciv.com/style_master/academy/browser_support/selectors.html
- Keep it simple – standard selectors + class + id, few fancy paths
- And no fancy property and values

If you need fancy, make sure that the markup is there for it...

For example

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If you wanted to add a pipe between each list element, you need to know which is the first!

The IE 6 way

```
li {border-left:1px solid lime}
li.first{ border:none}
```

The modern browser way:

```
#nav > ul > li {border-left:1px solid lime}
#nav > ul > li:first-child {border:none}
```

```
<div id="wrap">
  <div id="nav">
    <h1 />
    <ul>
      <li id="current"
        class="first"><span /></li>
      <li><a><span /></a></li>
    </ul>
  </div>
  <div id="content">
    <h1 />
  </div>
</div>
```

Styling: style for Moz/Safari/IE 7 last

- Dynamic pseudo class selectors (:active, :hover, :focus)
- Pseudo class selectors on all elements (not just <a>)
- :first-line, :first-letter
- :before, :after (for adding “content”)
- First child selectors (E:first-child)
- Adjacent selectors (E + F)
- Attribute selectors (E[foo=warning])

Examples - <http://www-personal.umich.edu/~gsilver/ui-experiments/welcome.html>

An exploration

- [CTools portal](#)
 - Main blocks
 - Namespacing
 - Decorative cruft (a lot of needs from different inst. and cultures needed to be addressed)
- Announcements
 - Common rendering needs of a webapp